

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

WINDBREAK/SHELTERBELT RENOVATION

(Feet)
Code 650

DEFINITION

Replacing, releasing, and/or removing selected trees and shrubs or rows within an existing windbreak or shelterbelt, adding rows to the windbreak or shelterbelt, or removing selected tree and shrub branches.

PURPOSE

Restoring or enhancing the original planned function of existing windbreaks or shelterbelts.

CONDITIONS WHERE PRACTICE APPLIES

In any windbreak or shelterbelt that is no longer functioning properly for the intended purpose.

CRITERIA

The following criteria will be used individually or in combination to restore or enhance the performance of a partially functioning or non-functioning windbreak or shelterbelt:

- To reduce plant competition or alter the density of the planting, individual trees or shrubs will be identified for thinning.
- To remove diseased branches or alter the density of the planting, the trees or shrubs will be pruned or sheared.
- To release adjacent rows of trees or shrubs, entire or partial rows of trees or shrubs will be identified and removed.

- To improve density and/or vigor of identified rows of trees or shrubs in decline, trees or shrubs with coppicing capability will be cut close to the ground to allow sprouting.
- To improve the growth and vigor of trees and shrubs, competing herbaceous vegetation will be mechanically or chemically controlled.
- To improve windbreak or shelterbelt density, additional rows of trees or shrubs will be added adjacent to or within an existing windbreak or shelterbelt. Existing growing space, shade level, and root competition will be evaluated and determined to be at acceptable levels to permit unimpeded growth to new plantings. (Note: Extending the length of an existing windbreak is handled under Windbreak/Shelterbelt Establishment Practice 380).

Residual plants will be protected during the renovation.

Comply with applicable federal, state, and local laws and regulations during the installation, operation, and maintenance of this practice.

CONSIDERATIONS

Renovation may be accomplished over a period of years.

Debris should be removed from the site and disposed of properly if the debris will cause insect, disease, fire, or operability problems.

Wildlife needs should be considered when selecting tree or shrub species. Species diversity, including use of native species, should be considered.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan, or other acceptable documentation.

Guidance for diagnosing and correcting windbreak problems is to be found in Iowa Woodland Technical Note # 20 "Windbreak Renovation" which is published jointly by the USDA Natural Resources Conservation Service, University of Nebraska Extension Service, USDA Forest Service, North Dakota State University, and the Nebraska Forest Service. It is also available on the worldwide web at <http://www.unl.edu/nac/brochures/ec1777/ec1777.pdf>

OPERATION AND MAINTENANCE

The following actions shall be carried out to ensure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice (maintenance):

- Replacement of dead trees or shrubs in new plantings or rows will be continued until the barrier's function is restored.
- Competitive vegetation will be controlled when it inhibits the renewed growth and vigor of the windbreak or shelterbelt.

- Supplemental water will be provided as needed.
- The trees and shrubs will be inspected periodically and protected from adverse impacts including insects, diseases, or competing vegetation. The trees or shrubs will also be protected from fire, damage from livestock, or wildlife.
- Additional thinning, pruning, or coppice management may be needed in the future to maintain function.
- Periodic applications of nutrients may be needed to maintain plant vigor.